

cover of the battery by disposing the first terminal contact end out of contact with the conductive cover.

Claim 53. A battery to which is attached a label that contains a tester for the battery, wherein the label is comprised of a tester circuit having a first end to contact a conductive cover forming a first terminal of the battery, and a second end to contact a second terminal of the battery, wherein the first end of the circuit is disposed out of contact with the conductive cover to provide a switch means for the tester, which ends of the circuit being electrically connected to each other via an area of controlled resistivity, and which circuit being electrically and thermally insulated from the terminals of the battery except for the first and second terminal contact ends; and an indicating material being disposed in responsive contact with the areas of controlled resistivity in the tester circuit.

REMARKS

Claim 45 has been cancelled, without prejudice to file a divisional application on it, to comply with the restriction requirement. Applicants hereby confirm election of claims 1-44.

The amendments to Claims 1 and 28 are supported by former Claim 2, and in the specification on page 14, lines 12-14. The amendments to Claims 2 and 5 are clerical. The amendments to Claims 13, 15, 19, 21 and 38 are supported on page 11, lines 6-8. New Claims 46 to 53 are supported in the specification on page 9, lines 1-7, and in former Claim 2.

Claims 1-44 stand rejected under 35 USC 103 as being

unpatentable over U.S. Patent 4,835,475 to Hanakura et al. in view of U.S. Patent 5,015,544 to Burroughs et al., Japanese Utility Model 63-120343 to Nishino, U.S. Patent 3,667,039 to Garfein et al., and U.S. Patent 4,723,656 to Kiernan et al. Applicants respectfully traverse this rejection.

Applicant's invention is a battery to which is attached a label that contains a state-of-charge indicating device. The indicator has a conductive tester circuit that is connected to the battery terminals. The label has a layer that thermally and electrically insulates the circuit from the conductive housing of the battery. As claimed in new Claims 46 and 47, the tester has a means for forming an electrical switch with the conductive housing. In new Claims 48, 49 and 53, the tester also has a means for forming an electrical switch with the conductive cover of the battery, for example by disposing a tab out of contact with the conductive cover. As claimed in new Claims 50-52, the tester has two switches, one switch to the conductive battery housing and one switch to the conductive cover of the battery.

Hanakura merely discloses a free-standing battery tester. To use the tester it must be placed in contact with the terminal ends of the battery. There is no disclosure or suggestion to include this tester in the label for the battery.

Nishino discloses a tester attached to a battery which needs a separate conductive piece to connect one end of the tester circuit with the terminal of the battery. There is no suggestion to include thermal or electrical insulation in the tester device. Regarding the new

Claims, there is no suggestion or disclosure to employ either single or double integral switch means in the tester. Nishino's combination with Hanakura does not suggest Applicant's construction to one skilled in the art because the resultant combination would still require a separate conductive piece to complete the circuit.

Burroughs does disclose a battery with a tester attached. However, its tester has two ends attached to the terminals of the battery and a complicated bubble type switch located somewhere in between. This switch has two conductive strips disposed in a bubble chamber provided by two nonconductive layers of the device. Burroughs does not give any examples for the types of materials that can be used for the nonconductive layers, and so there is no disclosure or suggestion to employ a thermally insulative layer in the tester device. The complicated bubble switch employed in Burroughs teaches away from the simple switch means claimed by the Applicants in the new Claims. Burroughs cannot be combined with Hanakura and Nishino to yield Applicants' invention because the resultant combination would have conflicting elements. Which switch would you use, Burroughs' bubble or Nishino's separate conductive piece?

Kiernan discloses a testing device that is attached to a package which contains the batteries. The batteries must first be removed from the package and its terminals must be aligned with the tester device to test the battery. There is no disclosure or suggestion to include this tester in the label for the battery, and so Kiernan is merely cumulative to the other references.

Garfein and Kurosawa disclose free-standing testers just as does Hanakura. Therefore, they are merely cumulative to Hanakura and do not supply the missing teachings.

The Examiner's attention is directed to U.S. Patent 5,059,895 to Cataldi et al., cited as of interest. The disclosure of this patent, in many respects, is more relevant than the art currently applied. Applicants have noted the conflict between the claims of this patent and this application. Applicants intend to provoke an interference with this patent.

Respectfully Submitted;



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